APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,222	08/02/2001	Gary G. Stringham	10008031-1	5906

7590 02/10/2005	EXAMINER
HEWLETT-PACKARD COMPANY	TANG, KENNETH

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ART UNIT	PAPER NUMBER
2127	

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td><td></td></tr>
<tr><td>09/921,222</td><td>STRINGHAM, GARY G.</td><td></td></tr>
<tr><td></td><td>Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td></td><td>Kenneth Tang</td><td>2127</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on <u>02 August 2001</u>.

2a)☐ This action is **FINAL**.　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-27</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-27</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>02 August 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

U.S. Patent and Trademark Office
PTOL-326 (Rev. 1-04)　　　　　　　　　　Office Action Summary　　　　　　　　Part of Paper No./Mail Date 01312005

DETAILED ACTION

1.   Claims 1-27 are presented for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.   Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

      a.   The following terms are indefinite:

           i.   In claim 1, "an address" (line 4 in the preamble) is indefinite because there is no connection between this term with anything else in the rest of the claim.

           ii.   In claim 1, "a processor" (line 4 in the preamble) is indefinite because it is not made explicitly clear whether this processor is of the host computer, or of the device, or neither of the two. Claims 9, 14, and 15 are rejected for the same reasons.

           iii.   In claim 1, "receiving the results file" (line 11) is indefinite because it is not made explicitly clear whether the device or the host computer, or neither is receiving the file.

           iv.   In claim 1, "the processor" (lines 9-10) is indefinite because it is unclear whether this is the processor of the host computer or of the device.

v.   In claim 2, "alternate personality" is indefinite because it is not made

explicitly clear in the claim language what this is an alternate of. For example, it

is unclear what is the main personality.

vi.   In claims 3 and 17, "PCL" is indefinite in the claim language because the

acronym is not made clear in the claim language. Applicant is required to spell

out and define the acronym in the claims. In addition, "PCL" is indefinite

because it is incomplete for omitting essential elements, such omission amounting

to a gap between the elements. See MPEP § 2172.01. The omitted elements are:

PCL is listed as a limitation but a printer has not even been introduced

beforehand.

vii.   In claim 7, "an executable file" is indefinite because it is unclear in the

claim language whether or not this is referring to the result file in claim 1.

viii.   In claim 18, "generating a task" (line 7) and "wrapping the task" (line 8) is

indefinite because it is not made explicitly clear in the claim language whether the

computer or the at least one remote peripheral device is performing this means.

ix.   Claim 18 is indefinite because it is not made explicitly clear in the claim

language whether this is a system claim or a means plus function claim.

x.   In claim 23, "the peripheral processing unit" (lines 11-12) is indefinite

because it is not made explicitly clear in the claim language which one of the at

least one remote peripheral device this is referring to.

b.   The following lacks antecedent basis:

xi.   Claim 6, "the network address", line 25.

> xii.   Claim 9, "the first personality of results", line 14-15.
>
> xiii.   Claim 9, "the results", line 16.
>
> xiv.   Claim 23, "the peripheral processing unit", lines 11-12.
>
> xv.   Claim 23, "the wrapper label", line 15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-8, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Yokomizo et al. (hereinafter Yokomizo) (US 6,321,266 B1) in view of Rothrock et al.

(hereinafter Rothrock) (US US 5,408,470).

3.   As to claim 1, Yokomizo teaches a method for distribution of a task, by a host computer,

to a device that comprises an address and a processor having an idle state, the method

comprising the steps of:

formatting the task and execution instructions in a packet *(col. 1, lines 10-17, and 44-51)*;

transmitting the packet to the device for generation of a result file by the processor in

response to the execution instructions *(col. 65, lines 31-44, col. 62, lines 40-48)*; and

receiving the results file *(col. 65, lines 31-44, col. 62, lines 40-48)*.

4.   Yokomizo teaches identifying packets when they are assigned before transmitting to the

device. However, Yokomizo fails to explicitly teach that the processing be done during a period

when the processor is normally idle. However, Rothrock teaches processing packets during idle

processing time *(col. 16, lines 31-33)*. It would have been obvious to one of ordinary skill in the

art at the time the invention was made to include the feature of processing be done during a

period when the processor is idle to the existing data processing system of Yokomizo because

this would allow for higher as well as lower-capacity transport medium to be accommodated

(more complex tasks) without using any processing time *(col. 16, lines 31-42)*.

5.   As to claim 2, Yokomizo teaches wherein the processor runs an alternate personality of a

plurality of personalities and the packet is processed by the alternate personality *(col. 63, lines

45-55)*.

6.   As to claim 3, Yokomizo teaches wherein the plurality of personalities comprises one or

more of a POSTSCRIPT or PCL personality *(col. 63, lines 45-55)*.

7.   As to claim 4, Yokomizo teaches wherein the address is a network address *(col. 12, line

20)*.

8.   As to claim 5, Yokomizo teaches wherein the network address is an Internet protocol

address (TCP/IP) *(col. 12, line 20)*.

9.   As to claim 6, Yokomizo teaches wherein the network address is an Ethernet address

(col. 12, line 20).

10.   As to claim 7, Yokomizo teaches the step of the host computer transmitting an executable

file to the device for use by the processor in order to process the task *(col. 71, lines 1-46)*.

11.   As to claim 8, Rothrock teaches wherein the device identifies the task as an idle state task

in response to a port of the device over which the packet is received *(col. 16, lines 31-42)*.

12.   As to claim 15, Yokomizo teaches a printer apparatus coupled to a host computer, the

apparatus comprising:

        a processor having an idle slate during which printing is not performed (inherent that in

the idle state, printing does not occur) *(col. 50, lines 56-60)*;

        an operating system, executed by the processor, for performing various personalities

(PCL, postscript, etc.) of the printer apparatus *(col. 9, line 60, col. 63, lines 45-55)*;

        means for interpreting the task and generating task results *(col. 13, lines 60-64, col. 65,

lines 31-44, col. 62, lines 40-48)*; and

        means for transmitting the task results back to the host computer *(col. 65, lines 31-44,

col. 62, lines 40-48)*.

13.   Yokomizo teaches a means for receiving a packet from the host computer. However,

Yokomizo fails to explicitly teach to process it during the idle state. However, Rothrock teaches

processing packets during idle processing time *(col. 16, lines 31-33)*. It would have been

obvious to one of ordinary skill in the art at the time the invention was made to include the

feature of processing be done during a period when the processor is idle to the existing data

processing system of Yokomizo because this would allow for higher as well as lower-capacity

transport medium to be accommodated (more complex tasks) without using any processing time

(col. 16, lines 31-42).

14.   As to claim 17, Yokomizo teaches wherein the various personalities of the printer

apparatus comprise a POSTSCRIPT personality, a PCL personality, and an idle CPU task

personality *(col. 63, lines 45-55, col. 50, lines 56-60)*.

15.   **Claims 9-13, 19, 21-23, and 25-26 are rejected under 35 U.S.C. 103(a) as being**

unpatentable over Yokomizo et al. (hereinafter Yokomizo) (US 6,321,266 B1) in view of

Harif (US 2002/0087881 A1).

16.   As to claim 9, Yokomizo teaches a method for distribution of a task, by a host computer,

to a device that comprises an address, an operating system that performs a plurality of

personalities, and a processor that executes the personalities and operating system, the method

comprising the steps of:

    identifying (identified before being assigned) the task at the host computer for processing

by the device *(col. 1, lines 44-51)*;

    formulating the task into executable instructions *(col. 1, lines 44-51)*;

labeling the packet for processing by a first personality (PCL or POSTSCRIPT) of the

plurality of personalities *(col. 63, lines 20-47)*;

addressing the packet with the address (IP address) *(col. 12, line 20)*;

transmitting the packet to the device for generation by the first personality of results in

response to the task and the task execution instructions *(col. 65, lines 31-44, col. 62, lines 40-*

48); and

receiving the results from the device *(col. 65, lines 31-44, col. 62, lines 40-48)*.

Yokomizo fails to explicitly teach wrapping task execution instructions and the task in a packet.

However, Harif teaches the concept of wrapping data packets with addressing information,

executable instructions, routing instructions, etc. *(page 4, [0032])*. It would have been obvious

to one of ordinary skill in the art at the time the invention was made to include the feature of

wrapping task instructions and the task in a data packet to the existing data packet

communication system of Yokomizo because this increases the control by providing a payload to

the network server *(page 4, [0032])*.

17.   As to claim 10, Yokomizo teaches wherein the plurality of personalities comprise a

POSTSCRIPT personality and a PCL personality and the first personality comprises an idle CPU

personality *(col. 63, lines 20-47)*.

18.   As to claim 11, Hairf teaches wherein the step of formulating the task into an executable

state comprises formulating the task into JAVA code *(page 9, [0066])*.

19.   As to claim 12, Yokomizo teaches wherein the task execution instructions comprise an

executable file for execution of the task *(col. 71, lines 1-46)*.

20.   As to claim 13, Yokomizo teaches wherein the task comprises a data file that is used by

the executable file to generate the results *(col. 65, lines 31-44, col. 62, lines 40-48)*.

21.   As to claim 18, Yokomizo teaches a computer system for minimizing processing time for

large processing job requests, including a computer in communication with at least one remote

peripheral device having a processor, memory, and an operating system, the system comprising:

       means for parsing tasks from the large processing job request for processing by the at

least one remote peripheral device *(col. 14, lines 11-15)*;

       means for generating a task comprising data and execution instructions *(col. 1, lines 44-

51)*;

       means for wrapping the task with a functionality label to form a packet;

       means for transmitting the packet to the at least one remote peripheral device for

processing by the at least one remote peripheral device to generate task results *(col. 65, lines 31-

44, col. 62, lines 40-48)*; and

       means for receiving the task results from the at least one remote peripheral device *(col.

65, lines 31-44, col. 62, lines 40-48)*.

22.   Yokomizo fails to explicitly teach wrapping task execution instructions and the task in a

packet. However, Harif teaches the concept of wrapping data packets with addressing

information, executable instructions, routing instructions, etc. *(page 4, [0032])*. It would have

. been obvious to one of ordinary skill in the art at the time the invention was made to include the

feature of wrapping task instructions and the task in a data packet to the existing data packet

communication system of Yokomizo because this increases the control by providing a payload to

the network server *(page 4, [0032])*.

23.   As to claim 19, Yokomizo teaches:

means for receiving the packet at the at least one remote peripheral device *(col. 65, lines 31-44, col. 62, lines 40-48)*;

means for processing the task with the necessary functionality, according to the execution

instructions, and generating the task results *(col. 65, lines 31-44, col. 62, lines 40-48)*;

means for capturing the task results *(col. 65, lines 31-44, col. 62, lines 40-48)*; and

means for addressing the task results for return to a transmitting computer *(col. 65, lines 31-44, col. 62, lines 40-48)*.

Harif teaches:

means for determining a necessary functionality for processing the task from

the wrapper label *(page 4, [0032])*;

means for unwrapping the packet *(page 4, [0032])*;

24.   As to claim 21, Yokomizo teaches wherein the at least one remote peripheral device is

one of a printer, a scanner, gaming systems, and a personal digital assistant *(printer, scanner,*

Fig. 17).

25.   As to claim 22, Yokomizo teaches a means for storing the task in memory of the at least

one remote peripheral device (external device) *(Fig. 17, 107R)*.

26.   As to claim 23, it is rejected for the same reasons as stated in the rejection of claim 18

(see references of Yokomizo and Harif). In addition, Yokomizo teaches having memory that

stores programming commands *(Fig. 9, items 1002 and 1003)*.

27.   As to claim 25, Yokomizo teaches wherein the task comprises at least one data file *(col.*

71, lines 59-67 through col. 72, lines 1-5).

28.   As to claim 26, Yokomizo teaches wherein the task comprises at least one executable file

(col. 71, lines 59-67 through col. 72, lines 1-5).

29.   **Claims 14, 20, 24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable**

over Yokomizo et al. (hereinafter Yokomizo) (US 6,321,266 B1) in view of Harif (US

2002/0087881 A1), and further in view of Herrendoerfer et al. (hereinafter Herrendoerfer)

(US 6,473,759 B1).

30.   As to claim 14, it is rejected for the similar reasons as stated in the rejection of claim 9

(with respects to Yokomizo and Harif). Yokomizo further teaches having a printer

communicating with the computer and an interpreter. Yokomizo and Harif fails to explicitly

teach having the interpreter be a Java interpreter. However, Herrendoerfer teaches a JAVA

interpretation process for a TCP/IP network *(col. 1, lines 35-55)*. It would have been obvious to

one of ordinary skill in the art at the time the invention was made to include the feature of having

a Java interpreter network to the existing TCP/IP communications network because the adding

the Java component will increase effectiveness and simplify programming efforts *(col. 1, lines

35-40)*. In addition, it is inherent that the printer is idle when the printer is not printing.

31.   As to claim 20, Yokomizo in view of Harif teaches wherein the necessary functionality is

a JAVA Virtual Machine. However, Herrendoerfer teaches a JAVA interpretation process in a

JVM for a TCP/IP network *(col. 1, lines 35-55)*. It would have been obvious to one of ordinary

skill in the art at the time the invention was made to include the feature of having a JVM in a

Java interpreter network to the existing TCP/IP communications network because the adding the

Java component will increase effectiveness and simplify programming efforts *(col. 1, lines 35-

40)*.

32.   As to claims 24 and 27, they are rejected for the same reasons as stated in the rejection of

claim 20.

33.   **Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yokomizo et**

al. (hereinafter Yokomizo) (US 6,321,266 B1) in view of Rothrock et al. (hereinafter

Rothrock) (US 5,408,470), and further in view of Herrendoerfer et al. (hereinafter

Herrendoerfer) (US 6,473,759 B1).

34.   As to claim 16, Yokomizo in view of Rothrock fails to explicitly teach wherein the task is

written in JAVA code and the means for interpreting the task comprises a JAVA Virtual

Machine. However, Herrendoerfer teaches a JAVA interpretation process in a JVM for a TCP/IP

network *(col. 1, lines 35-55)*. It would have been obvious to one of ordinary skill in the art at the

time the invention was made to include the feature of having a JVM in a Java interpreter network

to the existing TCP/IP communications network because the adding the Java component will

increase effectiveness and simplify programming efforts *(col. 1, lines 35-40)*.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The

examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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Kt
2/2/05

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SUPERVISORY PATENT EXAMINER
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